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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,577	12/03/2003	Manabu Suzuki	1081.1186	3453

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EXAMINER

KIM, DAVID S

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,577

Applicant(s)

SUZUKI ET AL.

Examiner

David S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following issues:

Fig. 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

In Fig. 10, the label for "Fig. 7" is used where -- Fig. 3 -- may have been intended.

In Fig. 10, the label for "Fig. 8" is used where -- Fig. 7 -- may have been intended.

In Fig. 10, the label for "Fig. 9" is used where -- Fig. 8 -- may have been intended.

In Fig. 10, the label for "Fig. 10" is used where -- Fig. 9 -- may have been intended.

2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because of its undue length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of **50 to 150** words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.

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The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

4. **Claims 1-2 and 5-12** are objected to because of the following informalities:

In claims 1-2, under the "requesting" step, "the preceding station" lacks antecedent basis.

In claims 1-2, 5-6, and 11-12, notice the term "station of interest". This term "station of interest" lacks antecedent basis.

In claims 1-2, notice the "shifting" step. The usage of the term "shifting" is awkward since it is unclear what exactly is being shifted.

In claims 5-6, "each plurality set of WDM transmission equipment" lacks antecedent basis.

In claims 7-10, the antecedent basis for "the transmitting amplifier" is unclear. That is, there is a plurality of WDM transmission equipment, and each equipment has its own transmitting amplifier. It is unclear which of these transmitting amplifiers is the antecedent basis for "the transmitting amplifier" in claims 7-10.

Appropriate correction is required.

Allowable Subject Matter

5. **Claims 1-12** are allowed.

6. The following is an examiner's statement of reasons for allowance:

In independent claims 1-2, notice the following limitations:

"requesting WDM transmission equipment in the preceding station to output ASE light;

in the WDM transmission equipment of the preceding station, based on the request for ASE light output, shutting off both passing-through light and added light, and outputting the ASE light corresponding to a predetermined number of wavelengths of signal light;

in the receiving amplifier of the WDM transmission equipment in the station of interest, performing the gain setting by use of the ASE light".

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Examiner's search did not discover any prior art that expressly teaches or suggests these limitations. Consider the following prior art references:

Taylor et al. (U.S. Patent No. 6,049,413) teaches the use of ASE light for setting the gain of an optical amplifier in Fig. 9. However, Taylor et al. does not teach or suggest the requesting step, the shutting off step, and the use of ASE light from a preceding station to perform gain setting.

Murakami et al. (U.S. Patent Application Publication No. US 2002/0039226 A1) teaches gain control based on ASE information (paragraphs [0079-0081]). However, Murakami et al. does not teach or suggest the requesting step, the shutting off step, and the use of ASE light from a preceding station to perform gain setting.

Inagaki et al. (U.S. Patent Application Publication No. US 2002/0060837 A1) teaches gain control/setting of cascaded repeaters based on ASE light (paragraph [0152]). However, Inagaki et al. does not teach or suggest the requesting step, the shutting off step, and the use of ASE light from a preceding station to perform gain setting.

Tsuda et al. (U.S. Patent Application Publication No. US 2002/0154359 A1) teaches gain setting (paragraph [0167]) that incorporates ASE information (paragraph [0092]). However, Tsuda et al. does not teach or suggest the requesting step, the shutting off step, and the use of ASE light from a preceding station to perform gain setting.

DeGrange, Jr. et al. (U.S. Patent No. 6,600,596 B2) teaches the adjustment of output power based on an upstream parameter(s) and ASE light in the input signal to an optical amplifier (col. 3, l. 59 – col. 4, l. 8). However, DeGrange, Jr. et al. does not teach or suggest the requesting step and the shutting off step.

Sakaida et al. (JP 09-107141 A) teaches the use of ASE light from a preceding component (11 in Drawing 1) for setting/controlling the gain of an optical amplifier (21 in Drawing 1). See paragraphs [0021], [0023], and [0025] for further details. However, Sakaida et al. does not teach or suggest the requesting step and the shutting off step.

Goobar et al. (EP 1 085 683 A1) teaches the relationship between ASE and gain for an optical amplifier and the usage of this relationship to control the signal output power of an optical amplifier

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(abstract, paragraph [0001]). However, Goobar et al. does not teach or suggest the requesting step, the shutting off step, and the use of ASE light from a preceding station to perform gain setting.

Goobar et al. (WO 01/65736 A1) teaches the use of upstream ASE light for controlling the output power of an optical amplifier (p. 3). However, Goobar et al. does not teach or suggest the requesting step and the shutting off step.

Also, Examiner's search did not discover any additional teachings that would be obvious to combine with any of the references above to compensate for the above noted deficiencies.

Furthermore, Examiner's search did discover references that do disclose some/all of the above-cited limitations of claims 1-2. However, these references were not disclosed early enough to overcome the priority date of the instant application. Consider the following references:

El-Reedy et al. (U.S. Patent Application Publication No. US 2005/0047781 A1) teaches the requesting step (Fig. 3), the shutting off step (paragraph [0031]), and the use of ASE light from a preceding station to perform gain setting (paragraphs [0030-0031]).

Horachi et al. (U.S. Patent No. 7,002,734 B2) teaches the requesting step (col. 12, l. 39-40), the shutting off step (col. 12, l. 17+), and the use of ASE light from a preceding station to perform gain setting (col. 11, l. 16+).

Yamashita (U.S. Patent Application Publication No. 2006/0082868 A1) teaches the use of ASE light from a preceding station to perform gain setting (paragraphs [0034-0037]).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. This application is in condition for allowance except for the formal matters noted above regarding the drawings, the specification, and the claim objections.

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Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Kim whose telephone number is 571-272-3033. The examiner can normally be reached on Mon.-Fri. 9 AM to 5 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth N. Vanderpuye can be reached on 571-272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DSK



KENNETH VANDERPUYE
SUPERVISORY PATENT EXAMINER